**Title: How to ping two virtual machines**

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**OS: CentOS 7**

**Part 1:**

* Get the latest version of Virtual-box
* Create Two vms one master1, the other master2.
* Can be 10 GB in storage, and 2000 MB in RAM.
* Go to settings->General->Advanced
  + And change the Shared Clipboard to: Bidirectional
  + And change Drag’n’Drop to: Bidirectional
* Go to settings->System
  + Uncheck the floppy and move it down below hard disk.
* Go to settings->System->Processor
  + Make sure that the Enable PAE/NX is unchecked.
* Go to settings->Storage
  + Click the cd under Controller: IDE, and on the far right click the other cd and pick your virtual optical disk drive. This is where you can add your OS image.

**Part 2:**

* Go ahead and click the start button for both vms.
* Make sure that you turn the internet on at the beginning!
* Go through the basic install of CentOS and when it comes time to restart the OS, just click the X at the very top right and hit “Power off the machine”, not “Save the Machine State!”
* Go to Settings->System
  + Uncheck the Optical and move it below the hard disk like we did with the floppy in the first part.
* Go to Settings->Network->Adapter 2
  + Check the “Enable Network Adapter”
  + Click on Attached to: (scroll down to “Host-only Adapter”).
  + Click on the “Advanced”, very bottom, click on Promiscuous Mode: (scroll down to “Allow All”.
  + Hit OK.
  + Do this for both vms.
* Start the vms back up.

**Part 3:**

* If you run into any errors while trying to restart the vms from this point just keep trying to restart. Eventually they will startup. Also, if are having issues with updating your system make sure that your network is on. Try rebooting as a last resort.
* So first off download my script from my git hub at: <https://github.com/AaronV77/Documentation> . In the scripts folder run the centosVBoxSetup script, or you can do these steps from here: <https://www.if-not-true-then-false.com/2010/install-virtualbox-guest-additions-on-fedora-centos-red-hat-rhel/> . You might have to get my script if the link is broken or just search for CentOS Guest Additions setup.
* Make sure to do everything on both machines.
* Type: sudo passwd
  + Setup your root password.
* Type: su
* Type: yum install git
* Type: git clone <https://github.com/AaronV77/Documentation.git>
* Type: ./centosVBoxSetup.sh
  + You have to be root and have the guest additions cd mounted. Just click devices at the top ribbon, and click on the “Install Guest Additions CD Image”. Do not run the CD, just hit cancel when the prompt comes up.
* Type: hostnamectl set-hostname “whatever you want it to be”
* Type: sudo nano /etc/hosts
  + At the bottom of the file use this example:
    - 192.168.30.300 (your hostname)
    - 192.168.30.301 (the computer you are pinging hostname)
* Type: cd /etc/sysconfig/network-scripts
  + You should see two files like ifcfg-enp0s3, ifcfg-enp0s8, ifcfg-lo.
  + If you don’t see enp0s8, then you have to make the file.
  + Use the example below for one of your machines.
  + TYPE=Ethernet
  + BOOTPROTO=static
  + DEFROUTE=yes
  + IPV4\_FAILURE\_FATAL=no
  + IPV6INIT=yes
  + IPV6\_AUTOCONF=yes
  + IPV6\_DEFROUTE=yes
  + IPV6\_FAILURE\_FATAL=no
  + IPV6\_ADDR\_GEN\_MODE=stable-privacy
  + NAME=enp0s8
  + UUID=f328ad46-ecf6-438e-9409-ca6bd45945fe
  + DEVICE=enp0s8
  + ONBOOT=yes
  + PEERDNS=yes
  + PEERROUTES=yes
  + IPV6\_PEERDNS=yes
  + IPV6\_PEERROUTES=yes
  + IPADDR=192.168.20.201
  + NETMASK=255.255.255.0
* Type: sudo service network restart
* Type: reboot

**Other:**

* This should have everything setup correctly. You might have to make sure that your internet is on always after reboots. Mine constantly kept turning off for some reason, also one of my machines didn’t have the enp0s8 file so I had to create it. This is all I had to do in order to ping two virtual machines.